

**In the Claims:**

Please cancel claims 1-17 and amend claims 18 and 19. This listing replaces all prior versions.

1-17. (canceled)

18. (currently amended) ~~[[A]]~~An improved system for forming a coating on a surface of a semiconductor wafer in a zone within a CVD arrangement of the type in which the zone is located near an exhaust and is thereby susceptible to gas supply depletion, the system ~~characterized in that the system further comprises~~comprising:

injector means for supplying a uniform supply of gas to the surface of the wafer,~~the surface being in a zone of the CVD arrangement and for mitigating gas supply depletion in the zone that exhibits a depleted gas supply absent the injector means~~; and

means for using the supplied gas in combination with selected reactants to deposit a coating on the wafer.

19. (currently amended) ~~[[A]]~~In a method for forming a coating on a surface of a semiconductor wafer in a zone within a CVD arrangement of the type in which the zone is located near an exhaust and is thereby susceptible to gas supply depletion, the method ~~characterized in that the method further comprises~~comprising:

supplying gas to the surface of the wafer using a gas injector adapted to maintain uniform supply of the gas and mitigate gas supply depletion in the ~~in a zone of the CVD arrangement that would exhibit a depleted gas supply absent the injector~~; and

using the supplied gas in combination with selected reactants and depositing a coating on the wafer.

20. (original) The method of claim 19, wherein supplying gas to the surface includes supplying gas in different quantities to different zones of the CVD arrangement.

21. (original) The method of claim 20, wherein the different quantities are selected to compensate for a gas depletion rate associated with the selected zone of the CVD arrangement to which the injector supplies gas.
22. (original) The method of claim 19, wherein the gas includes at least one of: ammonia and dichlorosilane.
23. (original) The method of claim 19, wherein depositing a coating on the wafer includes depositing an anti-reflective coating having uniform optical properties.
24. (original) The method of claim 23, wherein the anti-reflective coating is deposited having a  $k$  value of refractive index that is between about 0.6 and 0.8.
25. (original) The method of claim 23, further comprising performing photolithography on the wafer using the anti-reflective coating.
26. (original) The method of claim 19, wherein depositing a coating on the wafer includes depositing a coating having uniform thickness.
27. (original) The method of claim 19, further comprising adjusting the gas injector to maintain the uniform gas supply.
28. (original) The method of claim 27, wherein adjusting the gas injector comprises:  
providing at least one gas concentration detector in the CVD arrangement;  
detecting the concentration of the supplied gas using the detector; and  
in response to the detected concentration, adjusting the gas injector.
29. (original) The method of claim 28, prior to depositing a coating on the wafer, further comprising removing the at least one gas concentration detector from the CVD

arrangement after detecting the concentration of the supplied gas.

30. (original) The method of claim 29, wherein detecting the concentration of the supplied gas using the detector includes operating the CVD arrangement under simulated processing conditions.